

THE GRINDSTONE CANYON CHAMISE CONVERSION PROJECT

Several million acres of foothill and mountain land in California are covered with a dense growth of chamise-chaparral. Much of this area is too steep or has soil too poor to be used. Many acres, especially in northern California, have good soil and topography and can support a more useful vegetation cover. Conversion of the brush to grass on suitable sites provides more grazing for livestock, better habitat for wildlife, easier access for hunters and fire fighters, better watershed cover, and easier, safer fire suppression.

How to make the conversion is being demonstrated on the Grindstone Canyon area by the Mendocino National Forest, Region 5, and the California Forest and Range Experiment Station of the Forest Service. Guides to spraying procedures and adapted forage species are provided by the Agricultural Research Service. Recommendations apply only in northern California.

CONVERSION IS A 5-STEP PROCEDURE. Success depends on doing the right things at the right times. After selecting the best sites, brush should be removed by tractor crushing and safe burning. Fall drilling of a seed mixture of improved forage plants into the clean firm seedbed is the next essential step. Spraying the next spring with 2 to 3 pounds per acre, acid equivalent, of 2,4-D herbicide is necessary to kill brush seedlings and control sprouts. One or more additional sprayings may be necessary for complete sprout control. Conservative use through careful control of grazing will maintain the grass stand and minimize the re-invasion of chamise.

BURNING OF CRUSHED BRUSH has been effective in April, June, August, and October (see map on back page) but hazardous in August. In the spring fire is less likely to run out of control in standing brush. In any season FIRE MUST BE USED SAFELY.

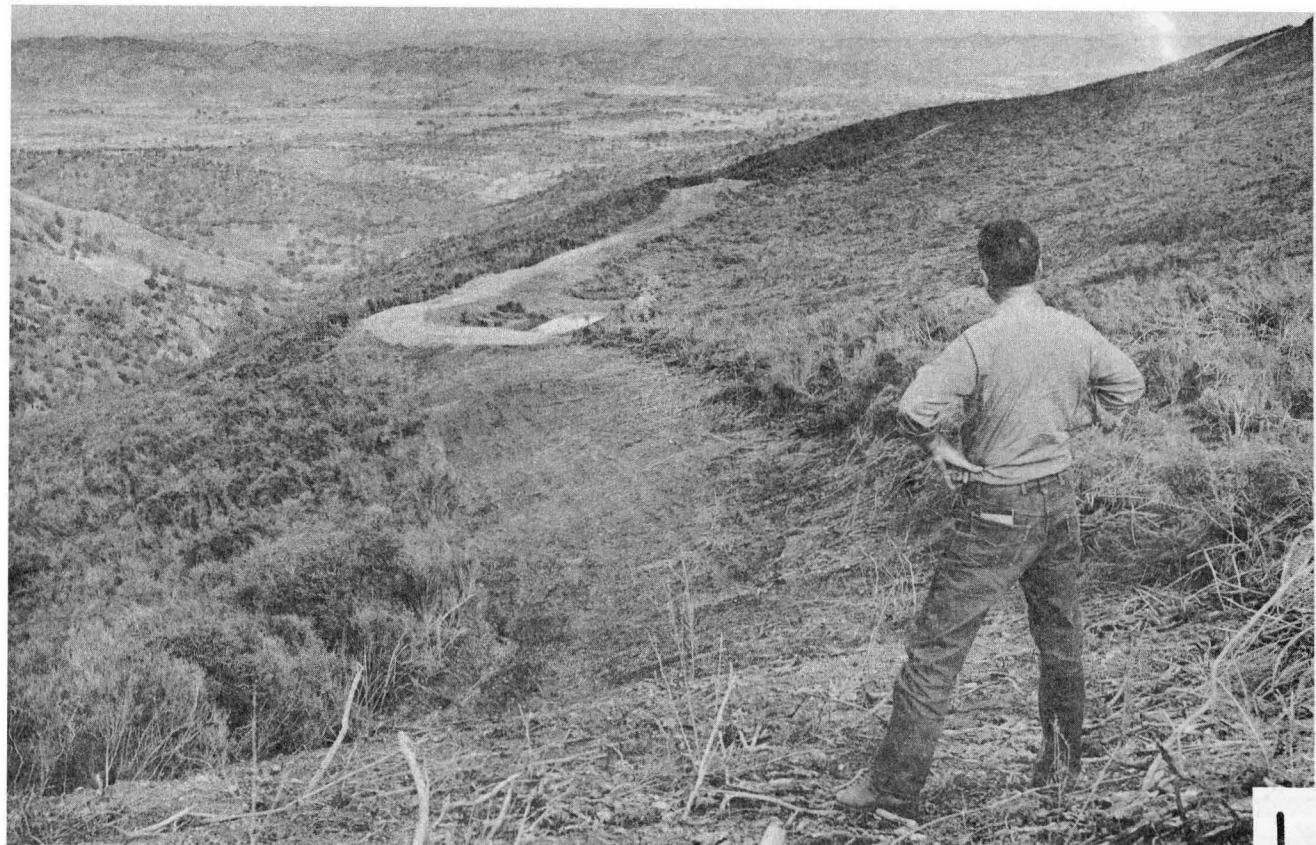
BRUSH SEEDLING AND SPROUT CONTROL has been necessary on all areas, even though deer browsing during the summer of 1957 was very severe on some areas, especially numbers 1 and 2. Some areas burned in 1957 must be sprayed in 1958.

THE SEED MIXTURE contained Hardinggrass, smilo, Sherman big bluegrass, intermediate wheatgrass, ladak alfalfa, alta fescue, and soft chess. Most of the drilling was done in October 1957.

GRAZING by cattle now is essential to determine the value of the converted acres and the effects of grazing.

For further information, write the Mendocino National Forest Supervisor, Willows; District Ranger, Stonyford; or the Director, California Forest and Range Experiment Station, P. O. Box 245, Berkeley 1, California.

U.S. Forest Service. 1958. The Grindstone Canyon chamise conversion project. Wash., D.C., 4 pp., illus.

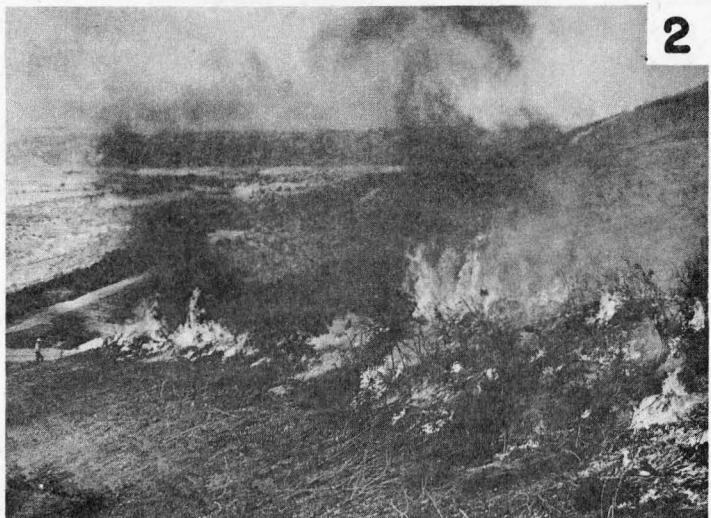


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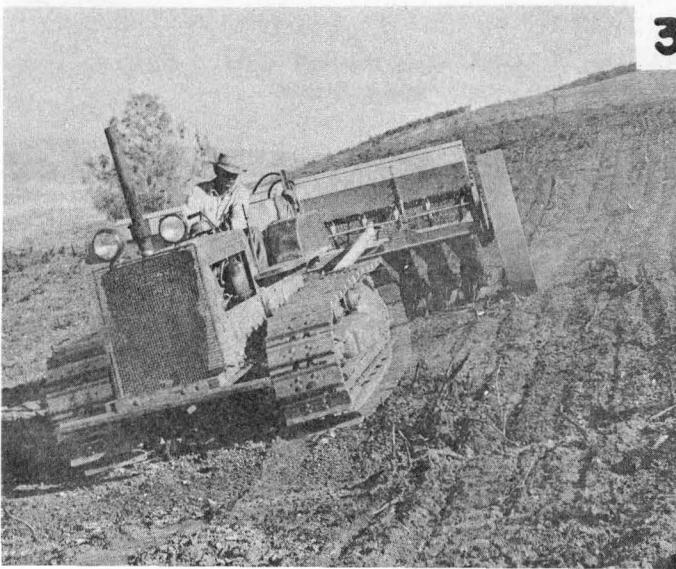
Conversion of brush to
grass on selected areas
can produce

- ...more grazing
for livestock
- ...better habitat
for game
- ...more breaks for
fire fighters

A pilot study on the
Mendocino National Forest
shows what it takes to
turn the trick.



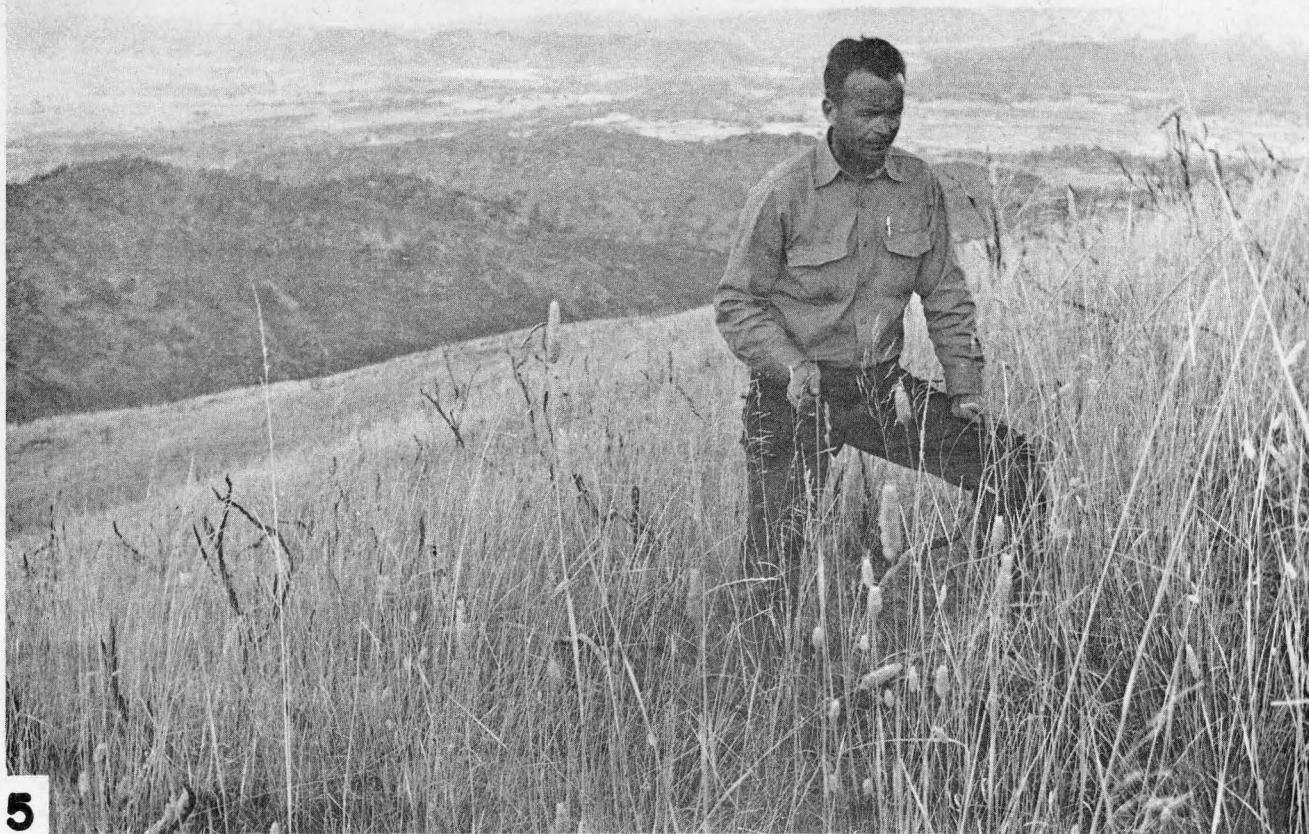
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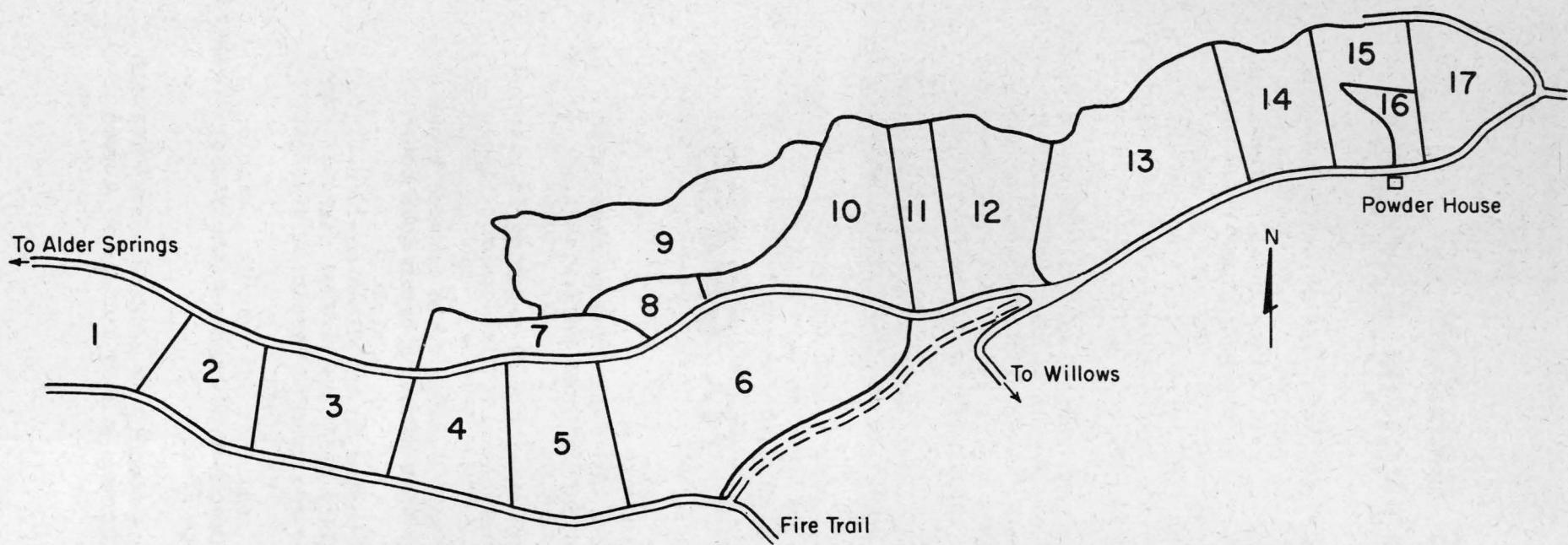


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CHAMISE.....TO GRASS

1. **SELECT** suitable areas...on ridges and benches, with moderate gradient and good soil...and...

PREPARE the brush for burning...by crushing it with a bulldozer and clearing fire-control lines.
2. **REMOVE** the brush by safe burning...the crushed brush burns readily when standing brush does not.
3. **SOW** adapted forage species in the clean seedbed... use a heavy-duty drill and a seed mixture that includes recommended perennial grasses.
4. **SPRAY** to kill brush seedlings and sprouts...with a selective, hormone-type chemical that does not injure the grass.
5. **MAINTAIN** a good grass stand...by grazing conservatively to promote vigorous growth and assure a good soil cover.



Area	Crushed	Burned	Drilled	Sprayed
1	Mar 1957	Apr 1957	Oct 1957	June 1957
2	Mar 1957	Apr 1957	Oct 1957	June 1957
3	Oct 1956	Oct 1957	Oct 1957	1958
4	Oct 1956	June 1957	Oct 1957	1958
5	Oct 1956	Aug 1957	Oct 1957	1958
6	Oct 1956	Oct 1956	Nov 1956	May 1957
7	June 1957	Aug 1957	Oct 1957	1958
8	June 1957	Apr 1957	Oct 1957	July 1957
9	June 1957	Apr 1957	Oct 1957	July 1957

Area	Crushed	Burned	Drilled	Sprayed
10	Mar 1957	Apr 1957	Oct 1957	July 1957
11	June 1957	June 1957	Oct 1957	1958
12	Mar 1957	June 1957	Oct 1957	1958
13	June 1957	Oct 1957	Oct 1957	1958
14	Mar 1957	Apr 1957	Oct 1957	July 1957
15	June 1957	Oct 1957	Oct 1957	1958
16	Not crushed	Apr 1957	Oct 1957	July 1957
17	Mar 1957	Apr 1957	Oct 1957	1958